IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): An information processing apparatus ~~that serves~~configured to serve as a reproduction instruction apparatus ~~for transmitting~~configured to transmit a data reproduction process request to a node connected to a network and ~~executing~~to execute a data reproduction process based on return data, ~~characterized by~~ comprising:

a data transmission rate setting unit ~~for selecting~~configured to select one or more data transmission modes ~~to be adopted~~ as a return data transmission mode, from a plurality of data transmission modes, and ~~determining~~to determine a data transmission rate of each selected data transmission mode;

a packet generating unit ~~for performing~~ configured to perform a setting process for reproduction ~~request process~~ object data and an address setting process in accordance with the data transmission rate determined by the data transmission rate setting unit, and ~~generating~~to generate a data reproduction process request packet storing designation data for the set reproduction ~~request process~~ object data as a request statement; ~~and~~

a network interface unit ~~for transmitting~~ configured to transmit the packet generated by the packet generating unit; and

a rule judgment condition setting unit configured to set judgment data for judging whether the node executes a process satisfying a process request.

2. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized in that~~ wherein:

the data transmission rate setting unit is configured to set the data transmission mode in accordance with a demand level of the reproduction object data and determine the data transmission rate of each selected data transmission mode.

3. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized in that:~~wherein

the data transmission rate setting unit is configured to select the data transmission mode including ~~at least either~~ a carousel transmission mode, a chaining transmission mode, a distributed cache mode or a client server mode, and to determine the data transmission rate of each selected mode.

4. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized in that:~~wherein

the data transmission rate setting unit is configured to have correspondence data between [[the]] a demand level of the reproduction object data and a band rate as the data transmission rate of ~~an adopted~~ a selected data transmission mode, to select the data transmission mode based upon demand level information of the reproduction object data in accordance with the correspondence data, and to execute a process of determining the data transmission rate of each selected mode.

5. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized in that:~~ wherein

the data transmission rate setting unit is configured to execute a process of determining the data transmission rate of each data transmission mode in accordance with [[the]] a value of a demand level[[:]] x determined by demand information by adopting a function group[[:]] $y = Dn(x)$ (where $\Sigma Dn(x) = 1$) set by the demand level[[:]] x, a band rate[[:]] y for each transmission mode, and an identification value[[:]] n of each data transmission mode.

6. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized in that:~~wherein

the data transmission rate setting unit is configured to execute a process of setting [[the]] a carousel transmission mode as the ~~adopted~~ selected data transmission mode, if [[the]] a demand level of the reproduction object data is higher than a preset threshold value.

7. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized by~~ further comprising:

a data recovery processing unit ~~for executing~~ configured to execute a deinterleave process and an FEC decoding process[[;]],

wherein the data recovery processing unit is configured to execute the deinterleave process and the FEC decoding process for the reproduction object data extracted from packets received from the node ~~received the data reproduction process request,~~ to recover data.

8. (Currently Amended): The information processing apparatus according to claim 1, ~~characterized by further comprising:~~

~~a rule judgment condition setting unit for setting judgment data capable of being adopted by a process of judging whether a node received the data reproduction process request executes a process satisfying the process request;~~

wherein the packet generating unit is configured to generate the data reproduction process request packet storing the judgment data set by the rule judgment condition setting unit and the designation data for the reproduction ~~process~~ object data.

9. (Currently Amended): The information processing apparatus according to claim 8, ~~characterized in that:~~wherein

the rule judgment condition setting unit is configured to execute a process of setting a probability value[[:]] β as a reproduction rule judgment condition statement ~~capable of being adopted by the process of~~for judging whether the node ~~received the data reproduction process request~~ executes the process satisfying the process request[[;]],

wherein the packet generating unit is configured to generate a packet storing the probability value[[:]] β as the reproduction rule judgment condition statement.

10. (Currently Amended): The information processing apparatus according to claim 8, ~~characterized in that:~~wherein

the reproduction object data stored at the node is encoded data at an encoding rate of q/p converted from p blocks of divided data into q blocks by FEC encoding[[;]], and

the rule judgment condition setting unit is configured to set a probability value[[:]] ß indicating that the node ~~received the data reproduction process request~~ returns data at a return probability[[:]] ß, the probability value[[:]] ß being set in such a way that the relation[[,]] between [[the]] a number of return blocks[[:]] $q \times \alpha \times n \times ß$ ~~able to be~~ calculated from [[the]] (1) a record probability[[:]] α designated by a record instruction apparatus connected to the network, (2) the number of encoded blocks[[:]] q, ~~and the~~(3) a number of network-connected nodes[[:]] n, and (4) the number of blocks[[:]] p, satisfies a condition that the number of return blocks[[:]] $q \times \alpha \times n \times ß$ [[>]] is greater than the number of blocks[[:]] p.

11. (Currently Amended): An information processing apparatus ~~that serves~~ configured to serve as a demand information provider apparatus ~~for providing~~ configured to provide demand level information of transmission data over a network, ~~characterized by~~ comprising:

a communication unit ~~for data transmission and reception~~ configured to transmit and receive data to and from a network-connected node; and

a control unit ~~for counting~~ configured to count a [[the]] number of demand level information acquisition requests received from the network-connected node via the communication unit and ~~generating~~to generate demand level information for each transmission data in accordance with the count ~~information~~, ~~generating~~to generate response information corresponding to [[the]] each demand level information acquisition request in accordance with the generated demand level information, and ~~transmitting~~to transmit the response information via the communication unit, wherein

the network-connected node is configured to set judgment data for judging whether a request for transmission data is executed based on the demand level information.

12. (Currently Amended): The information processing apparatus according to claim 11, ~~characterized in that:~~wherein

the control unit is configured to execute transmission control of a carousel transmission process request for data corresponding to [[the]] a demand level equal to or larger than [[the]] a threshold value, relative to a carousel transmission execution node ~~if~~when the demand level for each data based upon the count ~~information~~ becomes equal to or larger than a preset threshold value.

13. (Currently Amended): The information processing apparatus according to claim 12, ~~characterized in that:~~wherein

the control unit is configured to execute a process of storing an identifier of carousel transmission execution object data and carousel transmission destination address information set in accordance with transmission source node address information of the received demand level information acquisition request, in the carousel transmission process request.

14. (Currently Amended): An information processing method for a reproduction instruction apparatus for transmitting a data reproduction process request to a node connected to a network and executing a data reproduction process based on return data, ~~characterized by~~ comprising:

a data transmission rate setting step of selecting one or more data transmission modes ~~to be adopted~~ as a return data transmission mode, from a plurality of data transmission modes, and determining a data transmission rate of each selected data transmission mode;

a packet generating step of performing a setting process for reproduction ~~request process~~ object data and an address setting process in accordance with the data transmission rate determined by the data transmission rate setting step, and generating a data reproduction process request packet storing designation data for the set reproduction ~~request process~~ object data as a request statement;~~ and~~

a packet transmission step for transmitting the packet generated by the packet generating step; and

a rule judgment condition setting step of setting judgment data for judging whether the node executes a process satisfying a process request.

15. (Currently Amended): The information processing method according to claim 14, ~~characterized in that:~~wherein

the data transmission rate setting step includes ~~a process of~~ setting the data transmission mode in accordance with a demand level of the reproduction object data and determining the data transmission rate of each selected data transmission mode.

16. (Currently Amended): The information processing method according to claim 14, ~~characterized in that:~~wherein

the data transmission rate setting [[unit]]step includes ~~a process of~~ selecting the data transmission mode including ~~at least either~~ a carousel transmission mode, a chaining

transmission mode, a distributed cache mode or a client server mode, and determining the data transmission rate of each selected mode.

17. (Currently Amended): The information processing method according to claim 14, ~~characterized in that:~~wherein

the data transmission rate setting step ~~executes a process of~~ includes selecting the data transmission mode based upon demand level information of the reproduction object data and determining the data transmission rate of each selected mode, in accordance with correspondence data between [[the]] a demand level of the reproduction object data and a band rate as the data transmission rate of ~~an adopted~~ a selected data transmission mode.

18. (Currently Amended): The information processing method according to claim 14, ~~characterized in that:~~wherein

the data transmission rate setting step ~~executes a process of~~ includes determining the data transmission rate of each data transmission mode in accordance with [[the]] a value of a demand level[[:]] x determined by demand information by adopting a function group[[:]] $y = Dn(x)$ (where $\Sigma Dn(x) = 1$) set by the demand level[[:]] x, a band rate[[:]] y for each transmission mode, and an identification value[[:]] n of each data transmission mode.

19. (Currently Amended): The information processing method according to claim 14, ~~characterized in that:~~wherein

the data transmission rate setting step ~~executes a process of~~ includes setting [[the]] a carousel transmission mode as the ~~adopted~~ selected data transmission mode if [[the]] a demand level of the reproduction object data is higher than a preset threshold value.

20. (Currently Amended): The information processing method according to claim 14, ~~characterized by~~ further comprising:

a data recovery processing step of executing a deinterleave process and an FEC decoding process[[;]],

wherein the data recovery processing step ~~executes~~includes executing the deinterleave process and the FEC decoding process for the reproduction object data extracted from packets received from the node ~~received the data reproduction process request,~~ to recover data.

21. (Currently Amended): The information processing method according to claim 14, ~~characterized by further comprising:~~

~~a rule judgment condition setting step of setting judgment data capable of being adopted by a process of judging whether a node received the data reproduction process request executes a process satisfying the process request;~~

wherein the packet generating step generates the data reproduction process request packet storing the judgment data set by the rule judgment condition setting step and the designation data for the reproduction ~~process~~ object data.

22. (Currently Amended): The information processing method according to claim 21, ~~characterized in that:~~wherein

the rule judgment condition setting is configured to execute a process of setting a probability value[[:]] ß as a reproduction rule judgment condition statement ~~capable of being adopted by the process of~~ for judging whether the node ~~received the data reproduction process request~~ executes the process satisfying the process request[[;]],

wherein the packet generating step generates a packet storing the probability value[[:]] ß as the reproduction rule judgment condition statement.

23. (Currently Amended): The information processing method according to claim 21, ~~characterized in that:~~wherein

the reproduction object data stored at the node is encoded data at an encoding rate of q/p converted from p blocks of divided data into q blocks by FEC encoding[[;]], and

the rule judgment condition setting step sets a probability value[[:]] ß indicating that the node ~~received the data reproduction process request~~ returns data at a return probability[[:]] ß, and the probability value[[:]] ß ~~being~~ set in such a way that the relation, between [[the]] a number of return blocks[[:]] $q \times \alpha \times n \times ß$ ~~able to be~~ calculated from [[the]] a record probability[[:]] α designated by a record instruction apparatus connected to the network, the number of encoded blocks[[:]] q, ~~and the~~ a number of network-connected nodes[[:]] n, and the number of blocks[[:]] p, satisfies the number of return blocks[[:]] $q \times \alpha \times n \times ß$ [[>]] is greater than the number of blocks[[:]] p.

24. (Currently Amended): An information processing method for a demand information provider apparatus ~~for providing~~configured to provide demand level information of transmission data over a network, ~~characterized by~~ the method comprising ~~the steps of~~:

receiving a demand level information acquisition request from a network-connected node via a communication unit;

counting [[the]] a number of demand level information acquisition requests and generating demand level information for each data in accordance with the count ~~information~~; ~~and~~

generating a packet storing the demand level information based on the count ~~information~~ as response information and transmitting the packet via the communication unit; and

setting judgment data for judging whether a request for transmission data is executed based on the demand level information..

25. (Currently Amended): The information processing method according to claim 24, ~~characterized by~~ further comprising ~~a step of~~:

executing transmission control of a carousel transmission process request for data corresponding to [[the]] a demand level equal to or larger than [[the]] a threshold value, relative to a carousel transmission execution node ~~if~~when the demand level for each data based upon the count ~~information~~ becomes equal to or larger than a preset threshold value.

26. (Currently Amended): The information processing method according to claim 25, ~~characterized by~~ further comprising ~~the step of~~:

executing a process of storing an identifier of carousel transmission execution object data and carousel transmission destination address information set in accordance with transmission source node address information of the received demand level information acquisition request, in the carousel transmission process request.

27. (Canceled).

28. (Canceled).